

IN THE CLAIMS

1. (Cancelled)

2. (Cancelled)

3. (New) A rechargeable battery arrangement, the arrangement comprising a rechargeable battery and a protection circuit therefor, the rechargeable battery arrangement formed by the steps comprising:

mounting a field effect transistor arrangement on a circuit board, by (a) forming a chip cell comprising two transistors in which the drains of the respective transistors are serially connected; (b) forming gate and source electrodes, on the side of the chip cell opposite the drains, on the respective gate and source contacts of the respective field effect transistors; (c) adhering tin balls to each respective gate and source electrode bumps of each respective field effect transistor; (d) applying a plastic material to the top surface of at least a portion of the circuit board under which the chip cell will be positioned; (e) positioning the chip cell relative to the printed circuit board so that the source and drain electrode bumps of the respective field effect transistors are in facing alignment with the top surface of the circuit board; and (f) electrically adhering the respective tin balls to respective contacts on the printed circuit board and causing the plastic material to fill any existing air gaps located between the chip cell and the printed circuit board; and

electrically coupling (a) the gate electrode of the first field effect transistor to an output of the protection circuit, (b) the gate electrode of the second field effect transistor to another output of the protection circuit, and (c) the source electrode of the first field effect transistor to a negative terminal of the rechargeable battery; and

wherein the source electrode of the second field effect transistor is electrically coupleable to a positive terminal of a power supply for recharging the rechargeable battery.